

**Finger Ring**

**U.S. Patent Application of:**

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**Title of the Invention**

Finger Ring

**Cross Reference to Related Applications**

Not Applicable

**Statement Regarding Federally Sponsored Research or Development**

Not Applicable

**Description of Attached Appendix**

Not Applicable

**Background of the Invention**

This invention relates generally to the field of finger rings and more specifically to an ergonomically correct, non-rotating finger ring.

Finger rings worn as jewelry have been worn by male and female people for thousands of years. They typically have a circular inside diameter.

The outside diameter of the ring or band is typically constant, except for the top portion of the ring that can be seen on the outside of the hand, which may increase in size for decorative purposes or to retain a precious stone or the like.

Unfortunately, this type of ring design includes certain deficiencies. One such deficiency is that the circular outside diameter of the ring that abuts fingers to the left and right of the ring finger tend to allow the ring to rotate around the ring finger thereby

causing any distortion I meant located at the top of the ring to be off center. Additionally, the band width of the ring at the area where the ring finger meets the palm also remains constant thereby creating a potential uncomfortable resistance when the fingers of the hand are clenched into a fist shape. Finally, the constant band thickness of a traditional ring may create an uncomfortable sensation where the ring abuts the adjoining fingers.

#### Brief Summary of the Invention

The primary object of the invention is to provide a finger ring that is more comfortable to wear.

Another object of the invention is to provide a finger ring that has a reduced tendency to shift or spin.

Another object of the invention is to provide a finger ring that remains comfortable when the user's hand and fingers close or clenches an object..

Other objects and advantages of the present invention will become apparent from the following descriptions, taken in connection with the accompanying drawings, wherein, by way of illustration and example, an embodiment of the present invention is disclosed.

In accordance with a preferred embodiment of the invention, there is disclosed Finger Ring comprising: a finger ring type band, said band having a circular inside diameter, said band having a maximum first wall thickness of approximately one and seven tenths of a millimeter where said band abuts adjacent fingers, said band having a bottom portion of approximately seventy degrees where a maximum second wall

thickness of approximately one and eight tenths of a millimeter occurs at the center of said bottom ring portion and a maximum third wall thickness of approximately three and eight tenths of a millimeter occurs at each end of said bottom portion, said seventy degree band portion having a smooth transition between said third wall thickness at one end to said second wall thickness at said center to said third wall thickness at the opposite end, said first, second and third band wall portions having an inwardly directed convex cross section so that said wall thickness transitions from said maximum thickness at the center of said band wall to a minimum of one and one half millimeters at each edge of said band, said seventy degree band portion having an hour glass configuration so that the minimum width at the middle of said eighty degree portion is approximately three and four tenths of a millimeter and the maximum width at the ends of said eighty degree portion is approximately five and two tenths of a millimeter.

## **Brief Description of the Drawings**

**The drawings constitute a part of this specification and include exemplary embodiments to the invention, which may be embodied in various forms. It is to be understood that in some instances various aspects of the invention may be shown exaggerated or enlarged to facilitate an understanding of the invention.**

**Figure 1 is a perspective view of the invention.**

**Figure 2 is a side section view of the invention.**

**Figure 3 is bottom view of the invention.**

**Figure 4 is a perspective view of the invention showing side wall angles**

## Detailed Description of the Preferred Embodiments

Detailed descriptions of the preferred embodiment are provided herein. It is to be understood, however, that the present invention may be embodied in various forms. Therefore, specific details disclosed herein are not to be interpreted as limiting, but rather as a basis for the claims and as a representative basis for teaching one skilled in the art to employ the present invention in virtually any appropriately detailed system, structure or manner.

Referring now to Figure 1 we see a perspective view of the finger ring of the present invention 100. There are three key features to the present invention that, when used in conjunction with each other as shown, create an ergonomically superior, non-rotating finger ring. The first feature is the fact that the inner diameter of the ring 12 is radial or dome shaped in nature as more clearly shown is the section view in Figure 2. This radial shape creates an edgeless contact with the wearers finger and gives the wearer a soft, comfortable surface against their finger with reduced frictional forces. The second feature is the straightened side walls 10, 8 and bottom wall 50 that reduce the tenancy of the ring to rotate on the wearers finger. This configuration means that if a decorative element such as a precious stone or the like is place at the upper portion of the ring 22, it will remain visibly centered on the user's finger. The placement of the bottom portion 50 of the ring 100 must be quite specific to achieve the most comfortable and balanced fit. This placement is consistent with all ring sizes and may be scaled up or down depending on the size of the wearers finger. The third element of the present invention is that the thickness of the center portion 4 of the bottom or shank

portion of the ring 100 is less than the area to the left 2 and right 6 of the center 4. This creates a comfortable fit when the user's hand grabs, holds or clenches an object. Figure 3 shows that the bottom portion 50 of the ring 100 is comprised of opposed concave surfaces 5, 7 that create a thin portion 4 at the center and a thicker portion 2, 6 at the right and left of the shank or bottom 50. Figure 4 shows that the flattened side walls 10, 8 are not parallel to each other but angle inward 24, 26 approximately ten degrees resulting in a seventy degree portion 28 that I am calling the bottom 50 of the ring 100. From my experiments, this type of taper is the ideal angle for maximum finger comfort when the ring 100 is worn and also resists rotation of the ring 100. For descriptive purposes I will now indicate dimension of key portions of the ring 100, however it is to be understood that these dimensions could be scaled up or down depending on the overall size of the ring. The cross section dimension 20 is approximately one and eight tenths of a millimeter. The cross section dimension 21 is approximately three and eight tenths of a millimeter. Bottom portion 50 transitions in thickness from five and one tenth of a millimeter at edges 2, 6 to a minimum of three and four tenths of a millimeter at the center portion 4.

While the invention has been described in connection with a preferred embodiment, it is not intended to limit the scope of the invention to the particular form set forth, but on the contrary, it is intended to cover such alternatives, modifications, and equivalents as may be included within the spirit and scope of the invention as defined by the appended claims.